

**Remarks**

Reconsideration and allowance of this application, as amended, are respectfully requested.

Claim 11 has been amended. Claims 1-8 and 10-21 remain pending in the application, with claims 15-21 withdrawn from consideration as directed to a constructively non-elected invention. Claims 1, 11, and 15 are independent. The rejections are respectfully submitted to be obviated in view of the amendments and remarks presented herein. No new matter has been introduced through the foregoing amendments.

Claim 11 has been amended to emphasize that the embodiment of the invention defined therein is an article of manufacture. Claim 11 has also been amended to define another structural feature of the tubular film roll. Instant claim 11 defines "a tubular film roll comprising a film tube that includes four side walls cut from a single film web and joined to one another by four corresponding seams, each of the seams including an applied layer of extruded heated adhesive located on an edge of each of the side walls." Support for the instant recitation is found at, for example, specification page 6, lines 5-13, and in Figures 2 and 3. Entry of the amendment is respectfully requested.

Before turning to the arguments for patentability, Applicants acknowledge, as indicated above, that the examiner has withdrawn claims 15-21 from consideration as directed to a constructively non-elected invention. In formulating the

restriction, the Office Action identifies "Group I, claim(s) 1-8, 10-14, drawn to a process for manufacturing a bag" and "Group II, claim(s) 15-21, drawn to a method of forming and filling a bag." In support of the restriction, the examiner indicates that "Group II has a special technical feature of filling and sealing the open end of the bag so as to form a second sealed end of the filled tube" and that "Group I does not have the special technical features of Group II."

Applicants respectfully disagree. The claims of Group I do have the features of the Group II claims. The examiner states that Group I comprises claims 1-8 and 10-14. Claim 1 includes the step of "sealing the connected film segments *so as to form at least one sealed end of the bag.*" Claim 5 recites "[t]he process according to claim 1, further comprising a *step of filling the formed bag.*" Claim 6 recites "[t]he process according to claim 1, further comprising a *step of sealing a top end of the bag by transverse sealing.*" Claim 7 recites "[t]he process according to claim 5, wherein the *step of forming the bag and the step of filling the bag* are performed in a form, fill, and seal machine." (Even original claims 1, 5, 6, and 7, although worded somewhat differently, include the above-quoted features of the process.) Therefore, the claims of Groups I and II do in fact have the same/corresponding technical features.

Applicants' submission of claims 15-21 did not provide grounds for the now-imposed restriction. Accordingly, Applicants' election of Group I, claims 1-8 and 10-14, is respectfully made with traverse.

35 U.S.C. § 103(a) - Tetenborg and Kitao

Claims 1-8 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,873,815 to Tetenborg et al. (hereinafter "Tetenborg") in view of U.S. Patent No. 6,195,964 to Kitao.

The Office Action acknowledges that Tetenborg does not disclose a "bag made by connecting four film segments that [are] connected respectively by four seams." The Office Action relies upon Kitao for the teaching that "it is known in the bag making art to produce a bag (1, fig. 1) made of four film segments (7, 9, fig. 3a) that are connected by four seams (10a, figs. 1 and 3a)." The Office Action concludes that "it would have been obvious . . . to provide the bag of Tetenborg et al. with the bag of Kitao in order to provide a more versatile and robust bag."

The rejection of claims 1-8 and 10 under § 103(a) based on Tetenborg and Kitao is respectfully traversed. For at least the following reasons, the combined disclosures of Tetenborg and Kitao would not have rendered obvious Applicants' claimed invention.

By way of review, instant claim 1 defines a process for manufacturing a bag from a polymer and/or metal film material. The

problem that is solved by the present invention is that of providing a method of manufacturing bags having four seams by which it is simpler to feed the tube of bag-forming material. Accordingly, claim 1 defines a process in which the bag-forming material is fed in the form of a *single film web*.

Even more specifically, the claimed process includes the steps of "feeding the bag-forming material that is in a form of a *single film web* and that is wound up on a roll to an unwinding station of a bottom forming device, cutting the unwound film web into *four film segments*, connecting the *four film segments* to form a film tube having four outer walls that are connected respectively by four seams, and sealing the connected film segments so as to form at least one sealed end of the bag" (emphasis added).

An advantage of using Applicants' claimed single film web is that only a single film roll is required for the production of a film tube having four outer walls. Using only a single film roll reduces transport costs and makes it possible to easily vary the width of the walls of the bag.

The combined disclosures of Tetenborg and Kitao do not teach all of Applicants' claim features. According to one known method, tube segments are produced by providing four sheets of plastic material and by connecting the edges of the sheets. Kitao teaches such a method. If a bag is then to be filled with a product, a tube segment must be gripped and removed from a stack of

tube segments. However, this method is complicated and time consuming, and therefore, expensive.

Another known method for producing bags is to provide a tube that is wound up onto a roll. In a machine for forming such bags, the tube is unwound and routed to a bag forming station. There, the leading end of the tube, which is provided with a closing weld seam, is held by grippers. Above the grippers a tool cuts the tube so that the grippers then hold a tube segment. When the cutting step is performed, the new leading end of the tube is also closed by a cross bottom welding tool. After the grippers have transferred the separated tube segment to, for example, a filling station, the new leading end of the tube is pulled forward and the grippers engage the tube (see Tetenborg). This method, however, is known for providing tubes that are *seamless*. According to a variation of this method, a flat web material is *folded* to a tube and thus has a single seam.

It is not known, however, to produce bags having four seams by a process that includes, *inter alia*, "feeding the bag-forming material that is in a form of a single film web and that is wound up on a roll to an unwinding station of a bottom forming device" and "cutting the unwound film web into four film segments," as instantly claimed. The aforementioned problems associated with the prior art methods are solved by Applicants' process. Instead of making a simple tube out of a flat web material by simply folding the web into a tube, Applicants cut the web material

lengthwise, so that four sheets are obtained. The four sheets have a predefined width and an undefined length. The edges of the sheets are attached to one another so that a tube is formed. The tube that is formed by this process is wound up to a roll and routed to a bag forming station.

Even if the teachings of Tetenborg and Kitao were combined, the result would not be Applicants' claimed invention. According to the asserted combination, the four sheets that would form the walls of the bag are cut according to the desired length of the bag before the sheets are attached to each other, i.e., before the tube segment is formed. According to Applicants' invention the sheets are attached to each other in order to form a tube. That is, the claimed process includes "connecting the four film segments to form a film tube having four outer walls that are connected respectively by four seams, and sealing the connected film segments so as to form at least one sealed end of the bag." Only afterwards is the tube separated into tube segments according to the required length of the bags.

Therefore, the combined disclosures of Tetenborg and Kitao would not have rendered obvious the invention defined by instant claim 1. Claims 2-8 and 10 are allowable because they depend from claim 1, and for other reasons.

35 U.S.C. § 102(b) - GB '264

35 U.S.C. § 103(a) - Wessling and GB '264

Claims 11-14 stand rejected under 35 U.S.C. § 102(b) as being anticipated by GB 1,057,264 ("GB '264"). Claims 11-14 also stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Pub. No. 2002/0168120 of Wessling et al. ("Wessling") in view of GB '264.

The rejections of claims 11-14 under § 102(b) based on GB '264 and under § 103(a) based on Wessling and GB '264 are respectfully deemed to be obviated. For at least the following reasons, the disclosure of GB '264 does not anticipate, and the combined disclosures of Wessling and GB '264 would not have rendered obvious, Applicants' instantly claimed invention.

As indicated above, Applicants' instant claim 11 defines "a tubular film roll comprising a film tube that includes four side walls cut from a single film web and joined to one another by four corresponding seams, each of the seams including an applied layer of extruded heated adhesive located on an edge of each of the side walls."

GB '264's bag is structurally different from Applicants' claimed tubular film roll. GB '264 discloses a "Gusseted Multiwall Bag." According to GB '264, first a web of multi-wall bag blanks is formed (page 2, lines 78-105; Figure 1). GB '264 discloses that "[a]fter formation of the web 15 of multi-wall bag blanks, it may be transferred in this form for use in automatic packaging

apparatus" and that "[i]n apparatus of this type, the web is continuously *shaped into a gusseted, tubular form . . .*" (emphasis added) (page 3, lines 29-44; Figure 3). GB '264 also discloses that "the resulting bag blank is eventually folded about the parallel, longitudinally extending fold lines 36-38 with the stepped longitudinal edges thereof secured to one another, as shown in Figure 4 . . ." (page 3, lines 45-49).

That is not Applicants' claimed invention. GB '264 teaches a bag that is shaped from a web into a tubular form. GB '264 thus fails to disclose Applicants' claimed film tube that "includes four side walls cut from a single film web," has the cut side walls "joined to one another by four corresponding seams," and has "each of the seams including an applied layer of extruded heated adhesive located on an edge of each of the side walls."

Since GB '264 does not meet each feature of the claimed invention, GB '264 does not anticipate the invention defined by Applicants' instant claim 11. Claims 12-14 are allowable because they depend from claim 11, and for other reasons.

Similarly, the combined disclosures of Wessling and GB '264 would not have rendered obvious the invention defined by instant claim 11. The combined disclosures of Wessling and GB '264 do not teach all of Applicants' claim features. Wessling discloses a "Pleated-Side Bag or Sack Made of Flexible, Weldable Material" and does not rectify any of the above-described deficiencies of GB '264. Wessling does disclose a four-sided bag, i.e., that "[t]he

bag wall 4 constitutes the front wall of the bag, while bag wall 5 forms the back wall of the bag" and that "[b]etween these, side pleats 7 are inserted on both sides, which extend from the bottom end of bag 1 to its top end 2 and end flush with the top marginal edges of the bag walls 4 and 5" (paragraph [0014]). But, Wessling also discloses joining the sides with weld seams, i.e., that "[e]ach side pleat 7 has on both sides of its central crease 12 two side-pleat halves 13 and 14, which are joined along lateral weld seams 15 and 16 to the front wall 4 and back wall 5, respectively, of the bag" (emphasis added) (paragraph [0016]; see also paragraph [0017] regarding potential problems associated with the welding operation).

That is not Applicants' claimed invention. Wessling fails to disclose Applicants' claimed film tube that "includes four side walls cut from a single film web," has the cut side walls "joined to one another by four corresponding seams," and has "each of the seams including an applied layer of extruded heated adhesive located on an edge of each of the side walls."

Furthermore, since Wessling is directed to a bag that has welded seams and GB '264 is directed to a web that is folded into a tubular form, there is no teaching in either Wessling or GB '264 that would have led one to select the references and combine them, let alone in a way that would produce Applicants' claimed invention.

In view of the foregoing, this application is now in condition for allowance. If the examiner believes that an interview might expedite prosecution, the examiner is invited to contact the undersigned.

Respectfully submitted,

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